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ABSTRACT

The primary goal of this study was to assess the effectiveness of two distinctly different techniques, restatement and interpretation, on a criterion variable of counseling. The study objectives were: 1) to operationally define these two classes of counselor response and train two counselors to produce them upon cue in a counseling session, using an operant conditioning paradigm; to measure the discriminating or eliciting value of counselor restatement and interpretation upon the client's production of feeling responses in the interview; and 3) to measure the resistence of client exploration of feeling to extinction after affect has been elicited, using each technique. Two female counselor experimenters were trained to conduct the experimental interviews with 40 female subjects who volunteered to participate in a 30-minute counseling interview. Results indicate that while restatement has a detrimental effect on client exploring of feeling, interpretation enhances an important goal of counseling, to talk about one's feelings. References and tables are included. (Author/SES)

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DIFFERENTIAL REINFORCING POWER OF RESTATEMENT AND INTERPRETATION ON CLIENT PRODUCTION OF AFFECT

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March 15, 1973

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DIFFERENTIAL REINFORCING POWER OF RESTATEMENT AND INTERPRETATION ON CLIENT PRODUCTION OF AFFECT[1]

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March 15, 1973

Much of the literature in counseling attempts to designate ideal counseling "conditions" which facilitate client change. Such terms as empathy, unconditional positive regard, and congruence permeate the literature. Even though these conditions are presented as necessary for client growth and change, the fact remains that Hackney (1970) and Zimmer and Anderson (1968) are among the few researchers who have been able to operationalize hypothetical constructs in a way which describes behaviorally what the ideal counselor does to communicate such conditions to the client. Without such constructs counselors are trained to exhibit behaviors which are non-specific and, at best, vague, since they depend upon each counselor's interpretation of these hypothetical constructs.

However, specific types of counselor responses or techniques, among which are restatement and interpretation, have been related to the counselor's expression of empathy and positive regard for his client. What remains to be done are systematic studies of these verbal response classes under experimental conditions to assess their relative contribution to the facilitative interview. Past research also has been noticeably delinquent in its specifications of the factors which allow the counselor to say his client has "grown" and has changed in a beneficial manner, often depending on rating scales which tap how the client or counselor "feels" the interview has progressed. Only after the criteria are specified in ways that can be reliably measured (i.e., operational

definitions) can the relationship between the behaviorally independent and dependent variables be measured.

Considering client expression of feeling to be an important variable relating to client growth and a unique characteristic of the counseling setting, this experimental study sought to measure the effects of two types of counseling techniques, restatement and interpretation, on the differential production of client expression of affect in a low-structured counseling interview. The rationale for selecting client exploration of feeling as the criterion or dependent variable becomes apparent when counseling goals are identified. One dominant theme in counseling and psychotherapy literature is that the uniqueness of the counseling setting evolves from opportunities the client is provided to display, examine and modify feelings and attitudes. Sargent (1961) stated that "if increased conscious comfort and self-acceptance are seen as the primary therapeutic goals, self descriptions of feeling states will be prominent in [outcome] data" (page 94). Therefore, the counseling profession needs to know which techniques and skills allow or enhance this unique experience, the expression of feeling, to take place.

A review of the literature establishes a controversy surrounding the effects of the counseling techniques, restatement and interpretation, and the resultant need for an experimental study to measure their impact. Restatement, or paraphrase of the content of the client's statement, has often been applied to Rogerian counseling, because it demonstrates that the counselor is listening and respects the client's existential world by remaining within the limits of the client's perceptions. Pepyne (1968) found in reviewing past studies that the restatement was one of the two techniques that provided the most consistent reinforcement potential, independent of the content of the S's response. The

use of interpretation is a common tool and has demonstrated a staying power at the center of dynamically oriented psychotherapeutic procedures (Hammer, 1971). In psychodynamically oriented treatment, the ultimate goal of interpretation has to do with enablying insight and expanding self-knowledge. Few studies show in objective behavioral terms what outcome is produced in the client as a result of the use of the technique. Without such knowledge, there is no legitimate criterion against which to judge a technique's effectiveness. The general objectives of this study were:

1. to operationally define two classes of counselor response, restatement and interpretation, and to train two counselors to produce them upon cue in a counseling session, using an operant conditioning paradigm;
2. to measure the discriminating or eliciting value of counselor restatement and interpretation upon the client's productior of feeling responses in the interview;
3. to measure the resistance of client exploration of feeling to extinction after affect has been elicited, using each technique.

It was hypothesized that interpretation, a more difficult technique to master, when contrasted with restatement, a quickly learned and often used technique, is a more effective tool for the production of desired client skills, measured in this case by the proportion of affective client responses. Interpretation makes the client aware of something previously unknown to him or successfully unknown. The author theoretically supports the statement by Schobar (1968) that interpretation may be the contribution that helps tip the scale in favor of facing the conflict instead of defending against it. The present study seeks to answer the challenge issued by Garfield (1968) when he emphasized the need for research on the effects of interpretation so that future work in

the area may rest on substantive findings rather than on theoretical views.

Methodology

Forty female subjects (Ss) volunteered to participate in a 30-minute counseling interview purportedly designed to study counselor-client interaction in order to evaluate counselor performance. The 40 Ss were students enrolled in an undergraduate Educational Psychology course at University.

Two female counselor experimenters (Es) were trained, within the context of didactic instruction and role play interviews, to conduct the experimental interviews. The counselors had completed their Master's degrees in Counseling and were additionally matched on the variables of age and education. Each level of the five-hour training program contained minimal performance criteria (of at least 90 percent accuracy), which the counselor was required to meet before she was allowed to proceed to the next successive stage. The training program included the following components, each specified thoroughly in a training manual to permit replication: 1) detailed explanations and discussion of operational definitions of the verbal techniques; 2) drills in responding to client statements with the specified verbal techniques; 3) role playing of the conditioning period of the interview utilizing cue lights; 4) presentation and detailed discussion of the entire experimental procedure; 5) role plays of the entire interview.

The study used a three-factor design with repeated measures on one factor. Two treatments (T), restatement and interpretation, and two Es constituted the between-subjects variables. Three interview time periods (P) (baseline, conditioning, and extinction) served as the within-subjects variable. Figure 1 provides a schematic diagram of the experimental design. Proportions of

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Insert Figure 1 about here.

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critical responses to total responses were used as measures of the criterion variable, self-reference affect. It is much more meaningful to use a proportion score to measure change than to note changes in the frequency of the critical response class. It is not meaningful merely to change the number of response class units by increasing the S's loquacity rate. In order to be able to claim a modification of client verbal behavior, it is necessary to exhibit an increase in the proportion of critical response units. In addition, the use of a proportion score instead of a frequency count recognizes and tends to equate individual differences in loquacity rate.

The 40 Ss were randomly assigned to treatment-experimenter groups. Each experimental session was divided into three parts: warm-up period (P1), experimental interview (P2, P3, P4), and post-experiment inquiry. The total session lasted approximately 33 minutes. Figure 2 schematically depicts the overall format of the experimental procedure. During the warm-up period, the

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Insert Figure 2 about here.

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S was told to talk about anything she liked, as she might when she would talk with a counselor. Without the S's knowledge, the experimental interview was divided into three timed segments: baseline period (P2) (8 minutes); conditioning period (P3) (10 minutes); and extinction period (P4) (8 minutes). In the baseline and the extinction periods, the E responded to the Ss with minimal verbal stimuli whenever the E felt that a response was appropriate. The third period of each interview (P3) was a conditioning period. During P3, the E was cued (by a flashing light), as to when to respond to the next phrase or sentence the S emitted. This cueing was done on a variable interval reinforcement schedule, and the E used whichever treatment response, restatement or

interpretation, had been assigned to that S. The techniques were elicited from the counselor based on a 30-second mean interval which called for one response per minute from the counselor. Throughout P3, in addition to the emission of interpretation or restatement upon cue, the E emitted minimal verbal stimuli when she felt it was appropriate. Following each interview, a Counselor Evaluation Inventory (CEI) scale containing 19 items was completed by each S. This evaluation, a measure developed by Linden, Stone, and Shertzer (1964), was designed to assess the S's perception of the counselor and of the interview. In reviewing the experimental format, it should be kept in mind that although each S particpated in the warm-up period as well as the Post-experiment Inquiry, each S particpated in only one of the treatment conditions.

All counseling interviews were audio-recorded and converted into verbatim typescripts. Response units were identified prior to analysis of data using techniques described by Auld and White (1956). Utilizing Crowley's list of affect words, which have been identified through computer analysis of 90 counseling interviews, and his rules for identifying critical response class members, a frequency count of response units containing self-reference affect was taken. Statements which did not contain self-reference affect phrases were labeled "non-affect" response units. The inter-rater reliability computed for unitizing interview response units was .996, and the coefficient computed for classifying units was .968. The derived proportion scores of affect to total score for each period of the interview was subjected to Analysis of Variance and the Newman-Keuls Sequential Range Test, using an alpha level of .05 as the criterion of significance.

Results

The results of the study are structured according to the major topics which were investigated.

Pre-Conditioning Set

The data indicated that prior to attempted conditioning, the set (proportion of responses) toward self-reference affect responses did not differ for the four randomly selected S experimental groups. The lack of significant differences among the baseline rates of the experimental groups supported the valid randomization of Ss into groups and allowed for the comparability of the four groups throughout the experiment.

Main Effects

Table 1 provides a 2 (Treatment) x 2 (Experimenter) x 2 (Interview Time Period) repeated measures analysis of variance (ANOVA) of proportion scores of self-reference affect which was used to test for significance of the effect of treatment and experimenter on the learning of self-reference affect responses.

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Insert Table 1 about here.

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The results show clearly that the interpretation treatment produced a higher proportion of self-reference affect responses than the restatement treatment ($F = 57.93$, $p < .00001$). To gain a more comprehensive picture of how the treatments differed as the experiment proceeded, the conditioning and extinction results were regarded separately. A Newman-Keuls Sequential Range Test (NKTEST), by comparing mean scores, was used to identify the treatment levels which contributed to significant findings.

Conditioning

The ANOVA (Table 1) revealed a significant Time Period (P) effect ($F = 31.126$; $p < .00001$) indicating that the pattern of self-reference affect depends upon the time period of the interview. The NKTEST was applied to compare the means of each of the experimental time periods, P_2, P_3, and P_4 (see Table 2).

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Insert Table 2 about here.

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In terms of the pre-established criterion of conditioning (i.e., that the proportion of self-reference affect responses be significantly greater in P_3 than in P_2), the combined experimental groups successfully achieved conditioning of self-reference affect responses during the conditioning period (P_3) ($q = .114$; $p < .01$). Table 3 summarizes the NKTEST for the interaction of treatment and time period. Treatment One (T_1), interpretation, achieved

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Insert Table 3 about here.

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significant positive conditioning of the critical client response ($q = .324$; $p < .01$) and Treatment Two (T_2), restatement, achieved significant negative conditioning of the critical response ($q = .096$; $p < .05$). When the verbal technique was presented on a variable-interval schedule to the client, the interpretation response significantly increased the probability of a client responding with self-reference affect statements and the restatement response decreased significantly the probability of self-reference affect responses.

Extinction

All four experimental groups combined achieved extinction ($q = .092$; $p < .01$) (Table 2). In addition, the interpretation extinguished ($q = .194$; $p < .01$) but the restatement failed to extinguish ($q = .009$) (Table 3). When the verbal technique was no longer presented to the S, the interpretation significantly decreased the probability of the client emitting the criterion response and the restatement maintained its previously negatively conditioned level of self-reference affect statements. In terms of the pre-established

criterion of resistance to extinction (i.e., that the proportion of self-reference affect responses be significantly greater in P_4 than in P_2), it was found that the combined treatment groups (T_1 and T_2) failed to resist extinction ($q = .021$) (Table 2). The treatments separately did resist extinction of the critical response class ($q = .131$; $p < .01$; $q = .087$, $p < .05$) (Table 3). That is, during the extinction period (P_4), neither the interpretation nor restatement returned to its baseline rates. Because T_1 and T_2, respectively, positively and negatively conditoned self-reference affect, the combined treatment groups cancelled out the resistance to extinction effect which exists for each treatment group.

Experimenter Main and Interaction Effects

No evidence was discovered to indicate that one experimenter effected the production of self-reference affect differently than the other (Table 1). It can then be said that the training process was effective in eliminating confounding personality variables in that the Es demonstrated the ability to replicate the overall experimental results. The training process appears repeatable, generalizable and predictable.

Clients' Post-Experiment Perceptions

The Ss' perceptions of the interview and the counselor were similar for all treatments and experimenters. No differences were found in Ss' CEI scores between groups experiencing various treatment combinations.

Discussion and Summary

The present study provides new evidence of the conditioning and extinction effects of two counseling verbal techniques on one criterion of counseling, exploration of feeling. In achieving this objective, the study demonstrates the effectiveness of training counselors using a behavioral counseling model.

The results of this study call for a re-evaluation of previous research findings and suggest new directions for future research. Interpretation of the findings supports the contention that hypothetical counseling constructs, termed counseling techniques, can be operationalized in a way which describes behaviorally what the counselor does in an interview. Operationalized verbal counseling responses, therefore, can be taught to counselors instead of their having to rely on their individual interpretations of ill-defined hypothetical constructs.

Much of the research has been delinquent in defining criterion variables in a way that is quantifiable, reliable, and valid. This study measured actual behavior change in the expression of self-reference affect, providing a measure of client growth which goes beyond the mere speculation of change which is inherent in peer and self-rating scales. This rigorous specification of the criterion variable also allows the definition of various techniques to be expanded to include the effects of the verbal response on the client.

The primary goal of this study was to assess the effectiveness of two distinctly different techniques on a criterion variable of counseling, client exploration of feeling. Past research has reported restatement to be an effective technique of counseling (Pepyne, 1968). Most of these studies did not adequately operationalize restatement, did not provide a sufficient definition of their criterion variable, and did not employ a low-structured interview that has applicability to counseling.

The use of interpretation as a counseling technique has been surrounded by controversy. Whereas psychodynamically oriented counselors laud the effectiveness of interpretation (Hammer, 1971), many Rogerian and Gestalt therapists contend that interpretation impedes the process of therapy (Rogers, 1961). In

reviewing the literature on interpretation, it becomes apparent that most writers speak from a theoretical position rather than from empirical data.

This study's largest contribution was in converting conjecture about an effect of two counselor techniques into fact through experimental control. Contradicting past results, restatement demonstrated a detrimental effect on client exploration of feeling. The effect of interpretation, heretofore an opinion, enhanced an important goal of counseling, to talk about one's feelings. It can be recognized from these results that theoretical positions need to be substantiated by research before they can be stated as fact.

The results of this study, being pronounced and yet discrepant with past research, necessitates a closer look at the two techniques to determine why interpretation increased the client's ability to talk about her feelings while restatement decreased affective responses. Several explanations of this effect may be suggested. The interpretation technique, being defined more broadly, allowed greater counselor variability in responding to each S. Due to the rigid control of the restatement technique, coupled with the structure of the experiment which allowed the E to use only one technique throughout the interview, it is plausible that restatement may have caused a more negative conditioning effect than if it had been interspersed with other counseling techniques. However, recognizing the limitations imposed by the structure and by the controls, the evidence is still so diametrical and distinctive that the results are credible. The small sample size precluded spurious results based on chance differences. In comparing restatement and interpretation, one aspect of their structures best explains their differential effect on affect. Restatement, in reiterating a portion of the client's previous response, in effect narrows the client's perceptions and offers no new data to his awareness. If he is not cognizant of or is denying his feelings, he can easily continue doing so if the

counselor employs the restatement technique. Restatement demands that the counselor remain within the client's perceptual world. Interpretation, in comparison, opens new avenues to the client. The counselor expresses unverbalized attitudes and offers to the client an alternate view, thus widening the client's world. The data suggest that clients may be asking for the type of two-way interaction that interpretation allows before they are willing to expose their feelings.

An issue related to the training of counselors arises from the findings of this study. Counselors must be cognizant of their effect on client behavior, even while purporting to stay only with what the client is able to verbalize directly. When counselors accept that their effect on client behavior is at times in opposition to the stated goals of counseling, then as professionals they are bound to learn about the effects of their specific behaviors upon client outcome. From this knowledge, appropriate approaches and behaviors can be selected according to the outcome desired.

As well as having answered questions, this study has generated tenable hypotheses. Many directions for research are suggested. To increase the generalizability of the results, different client and counselor populations are needed in replication studies. Both male subjects and male experimenters are needed to determine the effect of sex on the production of affect. Therapy clients might respond differently than volunteer Ss for an experiment. Counselors should be selected who are schooled in differing orientations. The Es in this study, coming from the same counseling program, were quite similar in their orientation, which affected their non-experimentally controlled behavior. Client populations of different age and educational levels need to be introduced.

Using the methodology employed here, the effects of other counseling techniques on counseling criterion variables should be explored. Ideally,

the experimentation should move toward multiple independent variables, thus allowing for the use of several techniques which more closely approximates an actual counseling interview, and multiple criteria employing regression analysis as a statistical tool. Since interpretation is broadly defined, research which manipulates the levels of interpretation in terms of depth and accuracy would be beneficial. This study, using Ss from a non-client population, simulated an initial counseling interview. A longitudinal study would more accurately reflect the extinction effects over time. Content analysis should be applied to the counselor responses as well as to the client statements to determine, for example, the amount of affect contained in the counselor's response. From these results, it would be possible to determine the amount of role modeling taking place. The relationship between the counselor input and the client output needs to be determined so that counselors can be taught when, where, why, and how to utilize the skills they are taught. Counselor behavior, when it is well defined, can be said to have specific, predictable effects on the client.

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[1]Based on a doctoral dissertation submitted to the Education Department of Purdue University.

[2]The author is indebted to Shelley Stone and Harold Hackney, who served as committee members.

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Table 1

Analysis of Variance of Self-Reference Affect

by Treatments, Experiments, and Experimental Periods

Source	df	MS	F ratio	p level
Between-Subjects Variance				
Treatments (T)	1	.796	57.929	.00001
Experimenters (E)	1	.000	.010	.9166
T x E	1	.000	.009	.9328
Error (Between)	36	.014		
Within-Subjects Variance				
Time Periods (P)	2	.146	31.126	.00001
T x P	2	.442	93.991	.00001
E x P	2	.011	2.381	.0977
T x E x P	2	.002	.531	.6065
Error (Within)	72	.005		

Table 2

Newman-Keuls Test of Means

across Experimental Time Periods

Order of Means

Original	Ranked	Ranked Means
Conditioning (P_3)	1	.296
Extinction (P_4)	2	.203
Baseline (P_2)	3	.182

df = 72

$s_{\bar{x}}$ = .005

Rank	P_2	P_4
P_3	.114**	.092**
P_4	.021	

**$p < .01$.

Table 3

Newman-Keuls Test of Means for the

Interaction of Treatments with Time Periods

Order of Means

Original	Ranked	Ranked Means	
Interpretation--Conditioning (T_1P_3)	1	.481	
Interpretation--Extinction (T_1P_4)	2	.287	
Restatement--Baseline (T_2P_2)	3	.207	df = 72
Interpretation--Baseline (T_1P_2)	4	.157	$s\bar{x}$ = .005
Restatement--Extinction (T_2P_4)	5	.119	
Restatement--Conditioning (T_2P_3)	6	.110	

Rank	T_2P_3	T_2P_4	T_1P_2	T_2P_2	T_1P_4
T_1P_3	.371**	.362**	.324**	.274**	.194**
T_1P_4	.177**	.167**	.130**	.080*	
T_2P_2	.096**	.087*	.050		
T_1P_2	.047	.038			
T_2P_4	.009				

*$p < .05$

**$p < .01$

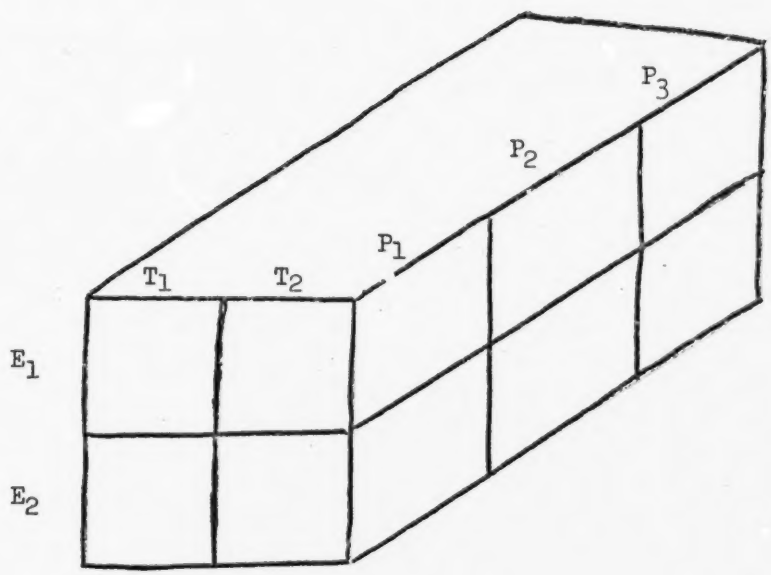
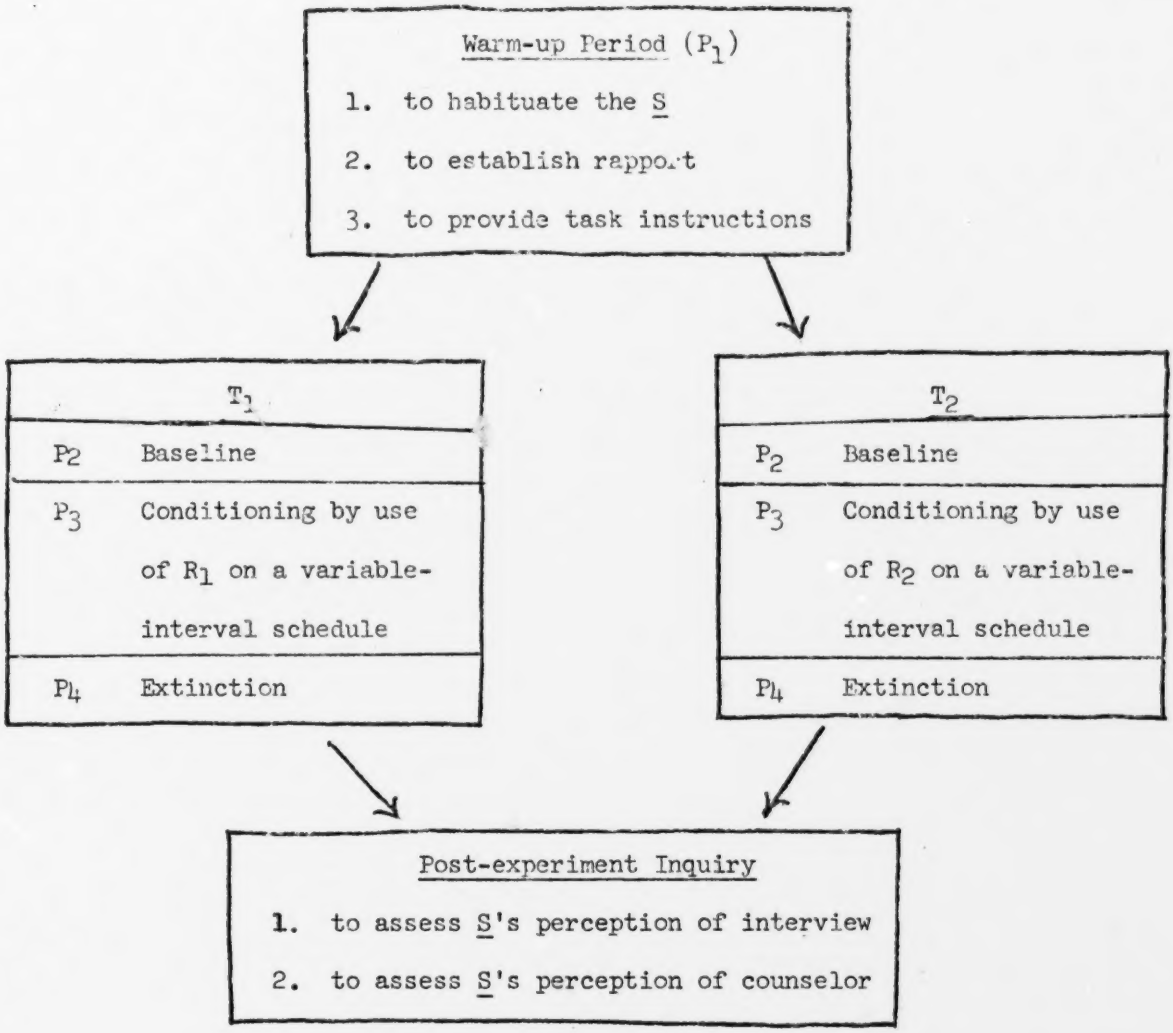


Fig. 1. Experimental Design.


Warm-up Period (P_1)
1. to habituate the S
2. to establish rapport
3. to provide task instructions
T_1
P_2 Baseline
P_3 Conditioning by use of R_1 on a variable-interval schedule
P_4 Extinction
T_2
P_2 Baseline
P_3 Conditioning by use of R_2 on a variable-interval schedule
P_4 Extinction
Post-experiment Inquiry
1. to assess S's perception of interview
2. to assess S's perception of counselor

Note: R_1 represents the Interpretation response;

R_2 represents the Restatement response.

Fig. 2. Experimental Procedure.